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PERKINS COIE LLP
PATENT-SEA
P.O. BOX 1247
SEATTLE, WA 98111-1247

EXAMINER	
ZELASKIEWICZ, CHRYSTINA E	
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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/534,836
Filing Date: March 24, 2000
Appellant(s): NEFF, C. ANDREW

Christopher J. Daley-Watson
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed March 17, 2006 appealing from the Office action mailed May 25, 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

The present Examiner's Answer is similar to a former Examiner's Answer filed on June 30, 2006. In response to the former Examiner's Answer, an Order Returning Undocketed Appeal to Examiner was filed on May 15, 2007. The present Examiner's Answer aims to correct the deficiencies noted in the May 15, 2007 Order. Otherwise, the present Answer is similar in content to the former Answer, which was written by Examiner Firmin Backer.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6081793	CHALLENER ET AL.	6-2000

Herschberg, Mark A. "Secure Electronic Voting Over the World Wide Web" Massachusetts Institute of Technology, pgs. 1-81 (May 27, 1997)

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herschberg (published literature provided by Appellant) in view of Challener et al (U.S. Patent No. 6,081,793).

As per claim 1, Herschberg teaches a method of registration, comprising receiving a hash of a public key and a written signature of each of a plurality of registrants through a first channel of communications that includes hand-delivery, receiving a public key and through a second channel of communications, different from the first channel of communications that excludes hand-delivery, for each of the plurality of registrants, digitally signing the public key if the hash of the public key of the registrant received through the first channel of communications corresponds to the public key of the registrant received through the second channel of communications; and providing the digitally signed public keys to an authenticating authority (see abstract, fig 3.2, chapter 3, 4). Herschberg fails to teach associating identifying information of at least some of the plurality of registrants. However, Challener teaches associated identifying information of at least some of the plurality of registrants (see column 7 line 38-8 line 18). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine Herschberg with Challener because this would provide an improved method and system for voting, which utilizes the internet and any other form of electronic communication, and maintains the same level of security and privacy in voting scheme.

As per claim 2, Herschberg teaches a method further comprising rejecting the registrant if the hash of the public key of the registrant received through the first channel of communications does not correspond to the public key of the registrant received through the second channel of communications (see abstract, fig 3.2, chapter 3, 4).

As per claim 3, Herschberg teaches a method wherein receiving a hash of a public key and a written signature through a first channel of communications includes receiving a written message via a courier (see abstract, fig 3.2, chapter 3, 4).

As per claim 4, Herschberg teaches a method wherein receiving a public key and associated identifying information through a second channel of communications includes detecting a signal carried in at least one of an electrical, a magnetic, and an electro-magnetic carrier (see abstract, fig 3.2, chapter 3, 4).

As per claim 5, Herschberg teaches a method wherein the hash of the public key and the written signature of the registrants received through the first channel of communications are non-electronic (see abstract, fig 3.2, chapter 3, 4).

As per claim 6, Herschberg teaches a method further comprising providing each of the registrants a copy of the respective digitally signed public key (see abstract, fig 3.2, chapter 3, 4).

As per claim 7, Herschberg teaches a method further comprising creating a hash of the public key received through the second channel of communications for comparison to the hash of the public key received through the first channel of communications (see abstract, fig 3.2, chapter 3, 4).

As per claim 8, Herschberg teaches a method further comprising enabling the registrants to submit the public key and associated identifying information through the second channel of communications only after receiving the hash of the public key and written signature through the first channel of communications (see abstract, fig 3.2, chapter 3, 4).

As per claim 9, Herschberg teaches a method further comprising preventing the registrants from submitting the public key and associated identifying information through the second channel of communications until after the hash of the public key and written signature are received through the first channel of communications (see abstract, fig 3.2, chapter 3, 4).

As per claim 10, Herschberg teaches a method further comprising entering the hash of the public key received though the first channel of communications into an electronic database (see abstract, fig 3.2, chapter 3, 4).

As per claims 11-40, they disclose the same inventive concept as in claims 1-10. Therefore, they are rejected under the same rationale (see abstract, fig 3.2, chapter 3, 4).

(10) Response to Argument

Appellant states on the record that independent claims 11, 13, 15, 17, 19 and 34 are "substantially similar to claim 1", and that independent claims 29 and 33 are “substantially similar to claim 21” (Appeal Brief p 7-10). Examiner will interpret "substantially similar" to mean "not patentably distinct." Because claims 1-20 are taken as a group and claims 21-34 are taken as a group, the grouped claims stand or fall together (Appeal Brief p 16-17). Herschberg, in view of Challener, discloses all the limitations of claims 1 and 21 as shown in Tables 1 and 2.

Table 1

Claim 1	**Herschberg teaches**	**Challener teaches**
receiving a **hash** of a public key and a **written signature** of each of a **plurality of registrants** through a first channel of communications that includes **hand-delivery**	**hash** of a session key; **signatures**; **voters** (p 29, 33, chapter 3, figure 3.2)	**public key** associated with voter identification; **paper ballots; voters; in person voting** (figures 1A and 6, C3 L1-30, C7 L1-37)
receiving a **public key** and associated **identifying information** of at least some of the plurality of registrants through a **second channel of communications**, different from the first channel of communications that excludes hand-delivery	**Public key, voter’s name and password** (chapter 3, 29-33, figure 3.2)	**Smart card** includes **voter identification**, the **public key** associated with that voter identification (C3 L1-30)
for each of the plurality of	The administrator **verifies the**	Authenticator **verifies the vote**

registrants, **digitally signing the public key if** the **hash** of the public key of the registrant received through the first channel of communications **corresponds** to the **public key** of the registrant received through the second channel of communications	**right of the voter to vote**, and the validity of his password. The administrator then **signs** the committed, blinded ballot (p 33, figure 3.2)	**is from the voter utilizing the public key** of the voter “VX”… appends an “add” message or **sign** (C 10 L1-20)
providing the digitally signed public keys to an **authenticating authority**	**Anonymous server** and **counter** receives all votes (p 34, figure 3.2)	Entire package is sent to the **authenticator** (C 10 L1-20)

Table 2

Claim 21	**Herschberg teaches**	**Challener teaches**
receiving a respective **public key** for each of a **plurality of registrants**	**voters**; **public key** (chapter 3, 29-33, figure 3.2)	**public key** associated with voter identification; **voters** (figure 1A, C3 L1-30)
for each of at least some of the plurality of registrants, **verifying an identity** of the registrant **in-person**	The administrator **verifies** the right of the voter to vote, and the **validity of his password** (p 33, figure 3.2)	**Verifying PINs in person**; paper ballots **in person** (C6 L62-67, C7 L 1-37)
for each of the verified registrants, receiving a **signature** of the registrant on a respective	The administrator verifies the right of the voter to vote, and the validity of his password. The	Authenticator **verifies the vote is from the voter utilizing the public key** of the voter “VX”…

hash card including a written **hash of the public key** of the registrant	administrator then **signs the committed, blinded ballot** (p 33, figure 3.2)	appends an “add” message or **sign** (C 10 L1-20)
for each of the verified registrants, **digitally signing the public key** received from the registrant **if** the **hash** on the hash card **corresponds** to the **public key** received from the registrant	The administrator **verifies the right of the voter to vote**, and the validity of his password. The administrator then **signs** the committed, blinded ballot (p 33, figure 3.2)	Authenticator **verifies the vote is from the voter utilizing the public key** of the voter “VX”… appends an “add” message or **sign** (C 10 L1-20)
providing the digitally signed public keys to an **authenticating authority**	**Anonymous server** and **counter** receives all votes (p 34, figure 3.2)	Entire package is sent to the **authenticator** (C 10 L1-20)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Herschberg with Challener because 1) a need exists for secure electronic voting that is user-friendly (Herschberg p 12-17); and 2) a need exists for a method and system of voting that allows for both paper-type ballots as well as electronic voting, which maintains the same level of security and privacy in both voting systems, can accommodate various legal and regulatory requirements, and removes fraudulent votes (Challener C1 L55-67, C2 L1-10).

Appellant argues that Herschberg, taken alone or in combination with Challener, fails to disclose (a) voter registration techniques in an electronic voting scheme; (b) registration that employs two channels of communication, one of which includes hand-delivery, in a public key electronic voting system; and (c) verifying voters/registrants in-person, or registration employing signatures on a hash card (Appeal Brief p 14-18).

Examiner respectfully disagrees with Appellant’s characterization of the prior art. Challener teaches and suggests a system wherein voters undergo a registration process in order to become "qualified" to vote in an upcoming election (emphasis added). According to Challener, voters are all registered to vote in accordance with the statutory and regulatory requirements. In most respects, according to Challener, the voter registration process will proceed in a conventional manner, in order to determine eligibility to vote. Each jurisdiction has qualifications on the fundamental requirements for a voting citizen. It is through the registration process that ineligible voters are blocked or screened from obtaining a voter registration status. In accordance with the preferred embodiment of the Challener invention, voters are each issued an individual "smart card" which is utilized during voting in accordance with the preferred embodiment of the present invention. Furthermore, the voter registration process will proceed in a conventional manner, in order to determine eligibility to vote. Each jurisdiction has qualifications on the fundamental requirements for a voting citizen. It is through the registration process that ineligible voters are blocked or screened from obtaining a voter registration status.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Chrystina Zelaskiewicz/

Examiner, Art Unit 3621

Conferees:

/Calvin L Hewitt II/

Supervisory Patent Examiner, Art Unit 3685

Vincent Millin /VM/
Appeals Practice Specialist